REMARKS

Claims 1-15 and 17-21, are the claims pending in the application. Applicant has added new claim 21 to more particularly define the invention and has canceled claim 16 without prejudice or disclaimer. Applicant gratefully acknowledges the Examiner's allowance of claims 2-5 and 18. Applicant has rewritten claim 2 in independent form placing this claim, and related claims 3-5, in condition for immediate allowance but elects not to rewrite claim 18 in independent form at this time. Claims 7, 8-11, 15-17, 19 and 20 stand rejected under 35 U.S.C. Section 112, Second Paragraph. Claims 1, 6-17, 19 and 20 stand rejected on prior art grounds. Applicants respectfully traverse the prior art rejections based on the following discussion.

I. The 35 U.S.C. Section 112, Second Paragraph Rejection

In response to the Examiner's comments, Applicant, as indicated above, has amended claims 7, 8-11, 15-17, 19 and 20, consistent with the recommendations.

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

II. The Prior Art Rejections

Claims 1, 6-17, 19 and 20 are rejected under 35 U.S.C. Section 102(b) as anticipated by DeMilo, et al. ("DeMilol")(J. Heterocyclic. Chem. 10: 231-233, 1973).

A. The DeMilo Reference

Briefly, Applicant's invention is primarily focused on primary or secondary amines as functional groups on the triazolyl-triazine structure though a functional group could include an ethyl mercaptan, whereas DeMilo's structures disclose tertiary amine and methyl mercaptan functional groups.

Regarding claims 1, 6-13 and 19-20, DeMilo fails to disclose, teach or suggest the features of independent claim 1, and related dependent claims 6-13 and 19-20, including the Rx is $-NH_2$, -OH, halogen, alkyamino, SR_1, carboxyalkyl, carboxy, or a sulfonamide moiety, where the R_1 is a H or a C_2 to C_6 alkyl moiety. Similarly, regarding claims 14, 15, 17 and 18, DeMilo fails to disclose, teach or suggest the features of independent claim 14, and related dependent claims 15, 17 and 18, including Rx is $-NH_2$, and Ry and Rz, independently, are electron donating groups. (See Application, Page 4, lines 14-16; and Page 5, lines 12-14).

First, Applicant respectfully submits that the Office Action only generally indicates that DeMilo teaches Applicant's invention at Scheme 1 with regard to triazolyl-triazine compounds. The Office Action does not specifically identify the particular compound(s) in the reaction of Scheme 1 thus potentially not meeting the requirements of the MPEP. (See Office Action, Page 3, last paragraph-Page 4, first paragraph).

Instead, Scheme 1 of DeMilo merely teaches a conventional insect sterilant involving tertiary amine functional groups, including 2,4,6-tris(dimethylamino)-s-triazine **2** undergoing two reactions resulting in a rearranged more stable 5,7-bis(dimethylamino)-3-(methylthio)-s-triazole [2,3-α]-triazine **5a**. In particular, alkylation of 2,4,6-tris(dimethylamino)-s-triazine **2** with methyl iodide provided the HI salt **3**, which included a methyl mercaptan as a leaving group on the triazolyl ring of the HI salt **3**. Further, the HI salt **3** reacts with excess anhydrous dimethylamine in absolute ethanol to rearrange without displacement and give an 88% yield of stable 5,7-Bis(dimethylamino)-3-(methylthio)-s-triazole [2,3-α]-triazine **5a**. Accordingly, the HI salt **3** includes a methyl mercaptan bonded to a carbon on the triazolyl ring, which is bonded to a nitrogen, and two tertiary amines (Me_2N) are bonded to carbons of the triazine ring.

The resultant 5,7-Bis(dimethylamino)-3-(methylthio)-s-triazole [2,3-α]-triazine **5a** includes the rearranged methyl mercaptan on the triazolyl ring and a nitrogen to nitrogen bond in lieu of the carbon-nitrogen bond of the HI salt **3**. The triazine ring still includes two tertiary amines, that is, a Me_2N and a NRR'. (See Application, Page 9, lines 13-17; and DeMilo, Page 231, Column 1 and Column 2; and Scheme 1).

Please note, the reaction of the HI salt **3** to the 3,5,7-tris(dimethylamino)-s-triazolo[4,3-α]-s-triazine structure **4** was "attempted." However, as indicated by the cross hatching across the reaction line, this reaction did not occur. Further, as indicated, the triazolyl-triazine structure **4** only includes three separate tertiary amine functional or substituent groups, that is, Me_2N, not any methyl mercaptan (primary amines) groups.

Therefore, the HI salt **3** and the resultant 5,7-Bis(dimethylamino)-3-(methylthio)-s-triazole [2,3-α]-triazine **5a** structures only include a methyl mercaptan and two tertiary amines as the functional groups attached to the triazolyl-triazine ring structure, respectfully.

Additionally, please note, the case law clearly teaches that mere disclosure does not by itself anticipate a compound as a reference must contain all of the elements of the claim as arranged in the claim.

Indeed, as indicated above, DeMilo is deficient and does not disclose or teach Applicant's claimed invention. Therefore, DeMilo does not disclose, teach or suggest, including the Rx is $-NH_2$, -OH, halogen, alkylamino, SR_1, carboxyalkyl, carboxy, or a sulfonamide moiety, where the R_1 is a H or a C_2 to C_6 alkyl moiety. Similarly, DeMilo does not disclose, teach or suggest, including Rx is $-NH_2$, and Ry and Rz, independently, are electron donating groups. Thus, Applicant's claimed invention is structurally distinct from DeMilo's invention.

In contrast, Applicant discloses a chemical composition, or salt therof, which may be used for agricultural purposes. The chemical composition has the name 1, 2, -triazolo[4,3-a][1,3,5]triazine-3,5,7-triamine, which includes a triazolyl-triazine structure as indicated in claim 1. The triazolyl ring includes a functional group Rx attached to a carbon of the triazolyl ring, and the triazine ring includes two separate functional groups Ry and Rz. In particular, the functional group Rx may be chosen from a variety of moieties, including $-NH_2$ and SR_1, where the R_1 includes a C_2 to C_6 alkyl moiety. A C_2 alkyl moiety is an ethyl moiety, which may used to form an ethyl mercaptan. (See above).

Accordingly, for emphasis, Applicant's claimed invention includes the functional group Rx which may include SR_1, where the R_1 includes a C_2 to C_6 alkyl moiety, whereas DeMilo discloses a compound, including a triazolyl ring with an SR_1 functional group where the R_1 is only a C_1 alkyl moiety, that is, a methyl moiety, to form a methyl mercaptan, not a C_2 to C_6 alkyl moiety.

Please note, as disclosed in claim 14, Applicant's invention may include a structure where the Rx is a primary amine, that is, a $-NH_2$ group (an amino group) and Ry and Rz, independently, are electron donating groups. Similarly, for example, as recited in new claim 21, Rx, Ry and Rz are each primary amines, that is, a $-NH_2$ group (an amino group).

In contrast, DeMilo, as indicated above, teaches in structures 3 and 5a of Scheme 1 that Rx is a SMe group, that is a methyl mercaptan group, and does not teach that Rx is an amine group, let alone a primary amine group, that is, a $-NH_2$ group. Further, structure 4, which is not a feasible product, only disclose that Rx, Ry and Rz are tertiary amines. Accordingly, DeMilo also does not teach the structure of claim 14 as well as the structure of new claim 21 as claimed by Applicant. Thus, again, Applicant's invention is structurally distinct. (See Application, Page 9, line 18-Page 10, line 6).

Based on the above, Applicant traverses the assertion that DeMilo teaches Applicant's invention of claim 1, and related claims 6-17, 19 and 20.

III. Formal Matters and Conclusions

In view of the foregoing, Applicants submit that claims 1-15 and 17-21, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Please charge any deficiencies and credit any overpayment to Attorney's Deposit Account Number 50-1114.

Respectfully submitted,

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